JOURNAL OF APPLIED TOXICOLOGY, VOL. 12, vii (1992)

Contents of Volume 12

NUMBER 1 FEBRUARY 1992

Announcements ii

Bioassay of Organophosphate Nerve Agents in Soil using Neuronal Tissue Cultures 1
T. W. SAWYER, M. T. WEISS, P. A. D'AGOSTINO, L. R. PROVOST AND J. R. HANCOCK

Diurnal Exposure Profile in Rats from Dietary Administration of a Chemical (Doxazosin) with a Short Half-life: Interplay of Age and Diurnal Feeding Pattern 7
C. CHARUEL, P. COMBY AND A. M. MONRO

Hexachlorobenzene (HCB) Suppresses Circulating Progesterone Concentrations During the Luteal Phase in the Cynomolgus Monkey 13
W. G. FOSTER, A. McMAHON, D. C. VILLENEUVE AND J. F. JARRELL

Comparative Studies of *in vitro* Renal Cephaloridine Toxicity between Normoglycemic and Diabetic Rats 19
M. A. VALENTOVIC, W. JEFFREY, J. G. BALL, D. BAILLY, M. MORENAS AND J. KINDER

Effects of Subacute Pyridostigmine Administration on Mammalian Skeletal Muscle Function 25
M. ADLER, S. S. DESHPANDE, R. E. FOSTER, D. M. MAXWELL AND E. X. ALBUQUERQUE

Oral Administration of D-Penicillamine causes Neonatal Mortality without Morphological Defects in CD-1 Mice 35
C. G. ROUSSEAUX AND L. G. MacNABB

Review of Chemical and UV Light-induced Melanomas in Experimental Animals in Relation to Human Melanoma Incidence 39
A. J. INGRAM

Effect of Chloroquine on Oestrus Cycle and Ovulation in Cyclic Rats 45
A. O. OKANLAWON AND O. A. ASHIRU

Teratogenic Assessment of Four Solvents using the Frog Embryo Teratogenesis Assay—*Xenopus* (FETAX) 49
T. D. DRESSER, E. R. RIVERA, F. J. HOFFMANN AND R. A. FINCH

Effect of Period of Exposure on the Developmental Toxicity of Butyl Benzyl Phthalate in Rats 57
M. EMA, T. ITAMI AND H. KAWASAKI

Inhalation Exposure of Rats to Metal Aerosol. I. Effects on Pulmonary Surfactant and Ascorbic Acid 63
Z. KOVÁČIKOVÁ AND D. CHORVATOVIČOVÁ

Inhalation Exposure of Rats to Metal Aerosol. II. Study of Mutagenic Effect on Alveolar Macrophages 67
D. CHORVATOVIČOVÁ AND Z. KOVÁČIKOVÁ

Toxicology Updates:
Ethylbenzene 69
R. VON BURG

Methyl *tert*-Butyl Ether 73
R. VON BURG

Book Reviews 75

NUMBER 2 APRIL 1992

Expression of Gratitude ii

Use of Hair Analysis for Evaluating Mercury Intoxication of the Human Body: a Review 79
S. A. KATZ AND R. B. KATZ

Efficacy of Hydrated Sodium Calcium Aluminosilicate in Reducing the Toxicity of Dietary Zearalenone to Mink 85
S. J. BURSIAN, R. J. AULERICH, J. K. CAMERON, N. K. AMES AND B. A. STEFICEK

Design and Evaluation of an Exhaled Breath Sampler for Biological Monitoring of Organic Solvents 91
J. F. PERIAGO, A. LUNA, A. MORENTE AND A. ZAMBUDIO

Effects of Dibutyrylcyclic Adenosine Monophosphate on Bleomycin-induced Lung Toxicity in Hamsters 97
C. A. O'NEILL, S. N. GIRI, Q. WANG, M. A. PERRICONE AND D. M. HYDE

Acute Toxicity of 2-Butyne-1,4-Diol in Laboratory Animals 113
R. A. JEDRYCHOWSKI, T. CZAJKOWSKA, J. STETKIEWICZ AND I. STETKIEWICZ

Subacute Oral Toxicity of 2-Butyne-1,4-Diol in Rats 117
R. A. JEDRYCHOWSKI, T. CZAJKOWSKA, R. GORNY, J. STETKIEWICZ AND I. STETKIEWICZ

Mechanism of Citrinin-induced Dysfunction of Mitochondria. I. Effects on Respiration, Enzyme Activities and Membrane Potential of Renal Cortical Mitochondria 123
C. M. CHAGAS, A. P. CAMPELLO AND L. W. KLÜPPEL

Two Year Toxicity and Carcinogenicity Study of Acrolein in Rats 131
R. A. PARENT, H. E. CARAVELLO AND J. E. LONG

Failure of *N*-Acetylcysteine to Reduce Alpha Amanitin Toxicity 141
S. M. SCHNEIDER, E. A. MICHELSON AND G. VANSCOY

Experimental Design-based Quantitative Structure–Toxicity Relationship of Some Local Anaesthetics using the PLS Method 143
U. NORINDER

Toxicology Updates:
Boron, Boric Acid, Borates and Boron Oxide 149
R. VON BURG

Creosote 153
R. VON BURG AND T. STOUT

NUMBER 3 JUNE 1992

Announcements

Promotional Activities of the Non-genotoxic Carcinogen Bemitradine (SC-33643) 157
S. C. GAD, E. BURTON, C. P. CHENGELIS, S. LEVIN, C. E. PIPER, Y. OSHIRO AND D. E. SEMLER

Flow Cytometry, Morphometry and Histopathology as Biomarkers of Benzo[*a*]pyrene Exposure in Brown Bullheads (*Ameiurus nebulosus*) 165
A. W. GRADY, R. M. McLAUGHLIN, C. W. CALDWELL, C. J. SCHMITT AND D. L. STALLING

Embryo Lethality and Teratogenicity of Butyl Benzyl Phthalate in Rats 179
M. EMA, T. ITAMI AND H. KAWASAKI

Effects of Palytoxin on Porcine Coronary Artery Rings 185
C. P. ROBINSON, D. R. FRANZ AND M. E. BONDURA

Tannin Content of Tea and Coffee 191
H. SAVOLAINEN

Comparative Lethality of Methanol, Ethanol and Mixtures in Female Rats 193
A. YOUSSEF, K. MADKOUR, C. COX AND B. WEISS

Cytogenetic Analysis of Pulmonary Lavage and Bone Marrow Cells of Rats after Repeated Formaldehyde Inhalation 199
C. E. DALLAS, M. J. SCOTT, J. B. WARD JR AND J. C. THEISS

Indirect and Lactation-associated Changes in Renal Alkaline Phosphatase of Newborn Rats Prenatally Exposed to Cadmium Chloride 205
A. M. SAILLENFAIT, J. P. PAYAN, M. BAN AND J. DE CEAURRIZ

Renal Effects of *N*-(3,5-Disubstitutedphenyl)succinimides in the Fischer 344 Rat 211
G. O. RANKIN, V. J. TEETS, H. SHIH, K. W. BEERS, D. W. NICOLL, D. K. ANESTIS, P. I. BROWN AND J. L. HUBBARD

The Local Lymph Node Assay: Results of a Final Inter-laboratory Validation under Field Conditions 217
E. W. SCHOLES, D. A. BASKETTER, A. E. SARLL, I. KIMBER, C. D. EVANS, K. MILLER, M. C. ROBBINS, P. T. C. HARRISON AND S. J. WAITE

Distribution to the Fetus and Major Organs of the Rat Following Inhalation Exposure to Pyrene 223
J. R. WITHEY, J. SHEDDEN, F. P. C. LAW AND S. ABEDINI

Book Reviews 233

NUMBER 4 AUGUST 1992

Obituary ii

Announcements iii

***In vivo* Evaluation of Airway and Pulmonary Tissue Response to Inhaled Methacholine in the Rat** 235
R. S. SAKAE, M. A. MARTINS, P. M. P. CRIADO, W. A. ZIN AND P. H. N. SALDIVA

Toxicology of Carbaryl and Aldicarb on Brain and Limb Cultures of Chick Embryos 239
M. FARAGE-ELAWAR AND T. K. ROWLES

The Effect of a Commercial 2,4-D Formulation on Chemical- and Viral-induced Tumor Production in Mice 245
B. R. BLAKLEY, J. M. GAGNON AND C. G. ROUSSEAUX

Incidence of Residual Levels of Organophosphorus Insecticides in Farm Produce in the Region of Murcia, Spain. Comparison of Intake in the 1985–86 and 1989 Campaigns 251
S. N. GARCIA, M. A. CÁMARA, A. BARBA, R. TOLEDANO AND A. LUNA

Development of a High-performance Liquid Chromatographic Method for the Determination of Benzophenone-3 in Rats 255
I. M. ABDEL-NABI, A. M. KADRY, R. A. DAVIS AND M. S. ABDEL-RAHMAN

Acute and Subacute Toxicity of 7.5% Hypertonic Saline/6% Dextran-70 (HSD) in Dogs 1. Serum Immunoglobulin and Complement Responses 261
J. J. SUMMARY, M. A. DUBICK, G. M. ZAUCHA, A. F. KILANI, D. W. KORTE, Jr. AND C. E. WADE

Mutagenicity Studies on Two Triphenylmethane Dyes, Bromophenol Blue and Tetrabromophenol Blue 267
G. H. Y. LIN AND D. J. BRUSICK

The Influence of Fenarimol on DNA Synthesis and Mitotic Activity in Rat Liver 275
D. PALUT, J. LUDWICKI AND J. SZLĘZAK-KOPEĆ

Relationship between Eye and Skin Irritation in Rabbits using a Series of Textile Fibre Finishes 281
G. L. KENNEDY, Jr. AND A. K. BANERJEE

Effects of Nickel Hydroxycarbonate on Alveolar Macrophage Functions 285
K. ARSALANE, C. AERTS, B. WALLAERT, C. VOISIN AND H. F. HILDEBRAND

Short Communication:
Preliminary Report on the Use of Zinc *in vivo* to Protect Against Nitrogen Mustard Toxicity in Female Balb/cJ Mice 291
M. E. SHACKELFORD AND R. A. TOBEY

Attempted Use of Zinc *in vivo* to Protect Against Nitrogen Mustard Toxicity in Tumor-free and in L1210 Leukemia-bearing Female B6D2F$_1$ Mice 295
M. E. SHACKELFORD AND R. A. TOBEY

Toxicology Update:
Phosphoric Acid/Phosphates 301
R. VON BURG

Letters to the Editor 305

Book Reviews 307

NUMBER 5 OCTOBER 1992

Announcements ii

Basis for Body Weight Exponent (0.75) as a Scaling Factor in Energy Metabolism and Risk Assessment 309
K. S. SIDHU

One-year Toxicity of Orally Administered Acrolein to the Beagle Dog 311
R. A. PARENT, H. E. CARAVELLO, M. F. BALMER, T. E. SHELLENBERGER AND J. E. LONG

Variable Effects of Chemical Allergens on Serum IgE Concentration in Mice. Preliminary Evaluation of a Novel Approach to the Identification of Respiratory Sensitizers 317
R. J. DEARMAN, D. A. BASKETTER AND I. KIMBER

Toxicity of 2-Methyl-5,6-cyclopentapyrimidine (MCPP) 325
G. L. KENNEDY, Jr

Calcium Antagonists can be Classified Using *in vitro* Toxicity and Potency Indices 329
R. SHRIVASTAVA, G. JOHN AND R. MASSINGHAM

Effect of Single Gallium Arsenide Exposure on some Biochemical Variables in Porphyrin Metabolism in Rats 333
S. J. S. FLORA AND S. D. GUPTA

Diethylbenzene Inhalation-induced Electrophysiological Deficits in Peripheral Nerves and Changes in Brainstem Auditory Evoked Potentials in Rats 335
F. GAGNAIRE, M. N. BECKER, B. MARIGNAC, P. BONNET AND J. DE CEAURRIZ

Alteration of Brainstem Auditory Evoked Potentials in Diethylbenzene and Diacetylbenzene-treated Rats 343
F. GAGNAIRE, M. N. BECKER AND J. DE CEAURRIZ

The Ca^{2+}-Transport-ATPase of Human Erythrocytes as an *in vitro* Toxicity Test System—Acute Effects of some Chlorinated Compounds 351
F. JANIK AND H. U. WOLF

Haematological and Hepatotoxic Effects of Silken Styles of Corn in Albino Rats 359
D. K. GARG AND R. N. GOYAL

Changes in Lipid Peroxidation Levels and Lipid Composition in the Lungs, Livers, Kidneys and Brains of Mice Treated with Paraquat 365
N. SATO, K. FUJII, O. YUGE AND M. MORIO

ATP–$MgCl_2$ Increases Cisplatin Toxicity in the Dog and Rat 369
E. M. HARDIE, R. L. PAGE AND P. J. HOOPES

Mutagenicity Evaluation of Riot Control Agent *o*-Chlorobenzylidene Malononitrile (CS) in the Ames Salmonella/Microsome Test 377
G. P. MESHRAM, R. P. MALINI AND K. M. RAO

NUMBER 6 DECEMBER 1992

Announcements ii

Obituary iii

Expression of Gratitude iv

The Effects of Probenecid on the Excretion of Stanozolol, an Anabolic Steroid, in Rats 385
J.-C. RYU, O.-S. KWON, Y.-S. SONG, J.-S. YANG AND J. PARK

Retention of Inhaled Perfluoroisobutene in the Rat 393
M. P. MAIDMENT AND D. G. UPSHALL

Effect of Lead on Hepatic Microsomal Enzyme Activity 401
B. NEHRU AND S. KAUSHAL

Magnetic Resonance Imaging of the Rat Brain Following Acute Carbon Monoxide Poisoning 407
V. JALUKAR, D. G. PENNEY, M. CROWLEY AND N. SIMPSON

Effects of 3-Methylcholanthrene or Diethyl Maleate on the Hepatotoxicity of Acetaminophen 415
J. A. SZYMAŃSKA, E. A. SWIETLICKA, J. K. PIOTROWSKI, M. SKRZYPIŃSKA-GAWRYSIAK AND S. SPORNY

Chick Embryo Exposure to Carbamates Alters Neurochemical Parameters and Behavior 421
M. FARAGE-ELAWAR AND W. D. BLAKER

Pulmonary Reactivity to Vanadium Pentoxide Following Subchronic Inhalation Exposure in a Non-human Primate Animal Model 427
E. A. KNECHT, W. J. MOORMAN, J. C. CLARK, R. D. HULL, R. E. BIAGINI, D. W. LYNCH, T. J. BOYLE AND S. D. SIMON

The Pattern of Poisoning in Urban Zimbabwe 435
C. F. B. NHACHI AND O. M. J. KASILO

Silymarin Protects against Paracetamol-induced Lipid Peroxidation and Liver Damage 439
P. MURIEL, T. GARCIAPIÑA, V. PEREZ-ALVAREZ AND M. MOURELLE

The Pathological Effects of Glove and Condom Dusting Powders 443
N. KANG, D. GRIFFIN AND H. ELLIS

Author Index 451